

## Author Index

- AALBERSE, R.C. *see* POUW KRAAN, C.T.M. VAN DER  
AARDEN, L.A. *see* POUW KRAAN, C.T.M. VAN DER  
ABO, T. *see* TAKII, Y.  
ACKERSTEIN, A. *see* ILAN, Y.  
ADLER, R. *see* ILAN, Y.  
AKAHOSHI, T. *see* HOSAKA, S.  
AKAI, Y. *see* IWANO, M.  
ALDHOUS, M.C., WATRET, K.C., MOK, J.Y.Q., BIRD, A.G. & FROEBEL, K.S. Cytotoxic T lymphocyte activity and CD8 subpopulations in children at risk of HIV infection, 61  
ALEXANDER, J. *see* BLACKWELL, J.M.  
ALEXANDER, J. *see* BREWER, J.M.  
ANDERSON, K. *see* McSHARRY, C.  
ANDO, S. *see* INOUE, H.  
ANTONNELLI, G. *see* GIANNELLI, G.  
ARCOLEO, F. *see* VITALI, G.  
ARNAIZ-VUILLENA, A. *see* RODRIGUEZ-GALLEGO, C.  
ARNOLD, W. *see* GLODDEK, B.  
AUKRUST, P., MÜLLER F. & FRÖLAND, S.S. Enhanced generation of reactive oxygen species in monocytes from patients with common variable immunodeficiency, 232  
AUTSCHBACH, F. *see* QIAO, L.  
BAAN, C.C., VAN EMMERIK, N.E.M., BALK, A.H.M.M., QUINT, W.G.V., MOCHTAR, B., JUTTE, N.H.P.M., NIESTERS, H.G.M. & WEIMAR, W. Cytokine mRNA expression in endomyocardial biopsies during acute rejection from human heart transplants, 293  
BAKIMER, R. *see* COHEN, J.  
BALK, A.H.M.M. *see* BAAN, C.C.  
BALLIEUX, B.E.P.B., ZONDERVAN, K.T., KIEVIT, P., HAGEN, E.C., ES, L.A. VAN, WOUDE, F.J. VAN DER & DAHA, M.R. Binding of proteinase 3 and myeloperoxidase to endothelial cells: ANCA-mediated endothelial damage through ADCC?, 52  
BANSAL, A.S., HAENEY, M.R., COCHRANE, S., PUMPHREY, R.S.H., GREEN, L.M., BHAVNANI, M. & WILSON, P.B. Serum soluble CD23 in patients with hypogammaglobulinaemia, 239  
BAUER, R. *see* MÜLLER, C.  
BELOGI, L. *see* FRANCESCO, P. DI  
BELOSEVIC, M. *see* DANIELS, C.W.  
BENHAMMOUDA, A. *see* MOUAWAD, R.  
BERG, W.B. VAN DEN *see* JOOSTEN, L.A.B.  
BERG, W.B. VAN DEN *see* LANGERITZ, P.L.E.M. VAN DE  
BERNHARD, S.L. *see* FISHWILD, D.M.  
BHAVNANI, M. *see* BANSAL, A.S.  
BIANCHI, F.B. *see* MA, Y.  
BIRD, A.G. *see* ALDHOUS, M.C.  
BLACKWELL, J.M., ROBERTS, C.W., ROACH T.I.A. & ALEXANDER, J. Influence of macrophage resistance gene *Lsh/Ity/Bcg* (candidate *Nramp*) on *Toxoplasma gondii* infection in mice, 107  
BLANCHE, S. *see* QUESNEL, A.  
BLANK, M. *see* COHEN, J.  
BLASER, M.J. *see* SHARMA, S.A.  
BOFILL, M. *see* MEDINA, E.  
BOIMORTO, R. *see* PEREIRA, L.F.  
BONETTI, F. *see* COMOLI, P.  
BOOTH, S.E. *see* PEPYS, M.B.  
BOOTSMA, H. *see* SPRONK, P.E.  
BORTHWICK, N. *see* MEDINA, E.  
BOUGY, F. *see* PHAM, B.-N.  
BOUILLON, R. *see* GHABANBASANI, ZAMANI M.  
BRENNAN, F.M. Role of cytokines in experimental arthritis, 1  
BREWER, J.M., RICHMOND, J. & ALEXANDER, J. The demonstration of an essential role for macrophages in the *in vivo* generation of IgG2a antibodies, 164  
BRINKMAN, B.M.N. *see* VERJANS, G.M.G.M.  
BROCCIA, C. *see* GIANNELLI, G.  
BURGER, E. *see* SINGER-VERMES, L.M.  
BÜSCHENFELDE, K.-H. MEYER ZUM *see* MAYET, W.-J.  
BUSEYNE, F., JANVIER, G., FLEURY, B., SCHMIDT, D. & RIVIÈRE, Y. Multispecific and heterogeneous recognition of the gag protein by cytotoxic T lymphocytes (CTL) from HIV-infected patients: factors other than the MHC control the epitopic specificities, 353  
BUSTOS, A. *see* PEREIRA, L.F.  
BUTLER, P.J.G. *see* PEPYS, M.B.  
BUYSE, I. *see* GHABANBASANI, M. ZAMANI  
CAFFORIO, P. *see* SILVESTRI, P.  
CALICH, V.L.G. *see* SINGER-VERMES, L.M.  
CANDELA, M. *see* GABRIELLI, A.  
CANIGLIA, M.L. *see* GABRIELLI, A.  
CARLSON, J. *see* PERLMANN, H.  
CARR, A., VASAK, E., MUNRO, V., PENNY R. & COOPER, D.A. Immunohistological assessment of cutaneous drug hypersensitivity in patients with HIV infection, 260  
CARROLL, S.F. *see* FISHWILD, D.M.  
CASALINUOVO, I.A. *see* FRANCESCO, P. DI  
CASSIMAN, J.-J. *see* GHABANBASANI, ZAMANI M.  
CATURLA, A. *see* PEREIRA, L.F.  
CATTELL, V. *see* COOK, H.T.  
CHIARAMONTE, M.G. *see* MALCHIODI, E.L.  
CILLARI, E. *see* VITALI, G.  
CLAYER, M.T.R., DREW, P.A., LEONG, A.S.-Y. & JAMIESON, G.G. IgG-mediated phagocytosis in regenerated splenic tissue, 242  
CLEMENTI, M. *see* GABRIELLI, A.  
CLEMENTI, R. *see* COMOLI, P.  
COCHRANE, S. *see* BANSAL, A.S.  
COHEN, J., BAKIMER, R., BLANK, M., VALESINI, G. & SHOENFELD, Y. Pathogenic natural anti-cardiolipin antibodies: the experience from monoclonal gammopathy, 181  
COHEN, J.H.M. *see* PHAM, B.-N.  
COLLOFF, M.J. *see* McSHARRY, C.  
COMOLI, P., MACCARIO, R., MONTAGNA, D., LABIRIO, M., ZECCA, M., CLEMENTI, R., BONETTI, F. & LOCATELLI, F. Expression of p75 chain of IL-2 receptor in the early immunological reconstitution after allogeneic bone marrow transplantation, 510  
CONCHA, E.G. DE LA *see* PEREIRA, L.F.  
COOK, H.T., EBRAHIM, H., JANSEN, A.S., FOSTER, G.R., LARGEN, P. & CATTELL, V. Expression of the gene for inducible nitric oxide synthase in experimental glomerulonephritis in the rat, 315  
COOLS, A.R. *see* LANGERITZ, A.G.M. VAN DE  
COOPER, D.A. *see* CARR, A.  
COPLAN, K.A. *see* WADEE, A.A.  
CORELL, A. *see* RODRIGUEZ-GALLEGO, C.  
COSTA, M.G. *see* PEIFANG, S.  
DAHA, M.R. *see* BALLIEUX, B.E.P.B.  
DAHA, M.R. *see* LEENAERTS, P.L.  
DAMMACCO, F. *see* SILVESTRI, P.  
DAMME, B.J. VAN *see* LEENAERTS, P.L.  
DANIELLI, M.G. *see* GABRIELLI, A.  
DANIELS, C.W. & BELOSEVIC, M. Serum antibody responses by male and female C57Bl/6 mice infected with *Giardia muris*, 424  
DANKERT, J. *see* EMMERIK, L.C. VAN  
DECORTE, R. *see* GHABANBASANI, M. ZAMANI  
DEGOS, F. *see* PHAM, B.-N.  
DEGOTT, C. *see* PHAM, B.-N.  
DEL VECCHIO, S. *see* GIANNELLI, G.  
DENIS, M. & GHADIRIAN, E. *Mycobacterium avium* infection in HIV-1-infected subjects increases monokine secretion and is associated with

- enhanced viral load and diminished immune response to viral antigens, 76
- DESSI, V. *see* PEIFANG, S.
- DIANZANI, F. *see* GIANNELLI, G.
- DOHI, K. *see* IWANO, M.
- DOHI, Y. *see* IWANO, M.
- DOURNIK, C.E.M. *van see* VERJANS, G.M.G.M.
- DREW, P.A. *see* CLAYER, M.T.R.
- DUMONDE, D.C. *see* STANFORD, M.R.
- DUURSMAN, J. *see* PUDIFIN, D.J.
- EBRAHIM, H. *see* COOK, H.T.
- EIBL, M.M. *see* MANNHALTER, J.W.
- EMMERICK, L.C. VAN, KUIJPER, E.J., FIJEN, C.A.P., DANKERT, J. & THIEL, S. Binding of mannan-binding protein to various bacterial pathogens of meningitis, 411
- EMMERIK, N.E.M. VAN *see* BAAN, C.C.
- ERLINGER, S. *see* PHAM, B.-N.
- ES, L.A. VAN *see* BALLIEUX, B.E.P.B.
- EVANS, T.G., RASMUSSEN, K., WIEBKE, G. & HIBBS, J.B. Jr. Nitric oxide synthesis in patients with advanced HIV infection, 83
- FALK, R.J. *see* YANG, J.J.
- FARZANEH, G. *see* MA, Y.
- FAVALI, C. *see* FRANCESCO, P. DI
- FENOGLIO, D. *see* PEIFANG, S.
- FERA, S. *see* GIANNELLI, G.
- FEYERABEND, C. *see* MCSHARRY, C.
- FIJEN, C.A.P. *see* EMMERIK, L.C. VAN
- FISCH, B. *see* YRON, I.
- FISHWILD, D.M., WU, H.-M., CARROLL, S.F. & BERNHARD, S.L. Characterization of the increased cytotoxicity of gelonin anti-T cell immunoconjugates compared with ricin A chain immunoconjugates, 10
- FLEURY, B. *see* BUSEYNE, F.
- FOSTER, G.R. *see* COOK, H.T.
- FRANCESCO, P. DI, GAZIANO, R., CASALINUOVO, I.A., BELOGI, L., PALAMARA, A.T., FAVALLI, C. & GARACI, E. Combined effect of fluconazole and thymosin  $\alpha$ 1 on systemic candidiasis in mice immunosuppressed by morphine treatments, 347
- FROEBEL, K.S. *see* ALDHOUS, M.C.
- FROELAND, S.S. *see* AUKRUST, P.
- FU, M.L.X., WALLUKAT, G., HJALMARSON, Å. & HOEBEKE, J. Characterization of anti-peptide antibodies directed against an extracellular immunogenic epitope on the human  $\alpha$ 1-adrenergic receptor, 146
- FUJII, Y. *see* IWANO, M.
- GABRIELLI, A., MANZIN, M., CANDELA, M., CANIGLIA, M.L., PAOLUCCI, S., DANIELI, M.G. & CLEMENTI, M. Active hepatitis C virus infection in bone marrow and peripheral blood mononuclear cells from patients with mixed cryoglobulinaemia, 87
- GADNER, H. *see* MANNHALTER, J.W.
- GÄKEN, J. *see* MA, Y.
- GAMBINO, G. *see* VITALE, G.
- GARACI, E. *see* FRANCESCO, P. DI
- GATENBY, P.A. *see* OLIVE, C.
- GATHIRAM, V. *see* PUDIFIN, D.J.
- GAUSE, A. *see* SCHRAUDER, A.
- GAZIANO, R. *see* FRANCESCO, P. DI
- GENIN, C. *see* QUESNEL, A.
- GHABANBASANI, M., ZAMANI, BUYSE, I., LEGIUS, E., DECORTE, R., MARYNEN, P., BOUILLON R. & CASSIMAN, J.-J. Possible association of CD3 and CD4 polymorphisms with insulin-dependent diabetes mellitus (IDDM), 517
- GHADIRIAN, E. *see* DENIS, M.
- GIANNELLI, G., ANTONELLI, G., FERA, G., DEL VECCHIO, S., RIVA, E., BROCCIA, C., SCHIRALDI, O. & DIANZANI, F. Biological and clinical significance of neutralizing and binding antibodies to interferon- $\alpha$  during therapy for chronic hepatitis C, 4
- GIORDANO, C. *see* VITALI, G.
- GLODDEK, B., ROGOWSKI, M. & ARNOLD, W. Adoptive transfer of an autoimmune laryngitis in the guinea pig: animal model for a sympathetic cochleolabyrinthitis, 133
- GOLLING, M. *see* QIAO, L.
- GÓMEZ, A.M., SMAIL, F.M. & ROSENTHAL, K.L. Inhibition of HIV replication by CD8<sup>+</sup> T cells correlates with CD4 counts and clinical stage of disease, 68
- GOUIN, E. *see* SAI, P.
- GREEN, L.M. *see* BANSAL, A.S.
- GRISCELLI, C. *see* QUESNEL, A.
- GUPTA, R.S. *see* SHARMA, S.A.
- HAENEY, M.R. *see* BANSAL, A.S.
- HAGEN, E.C. *see* BALLIEUX, B.E.P.B.
- HAGSTEDT, M. *see* PERLMANN, H.
- HALL, B.M. *see* LEENAERTS, P.L.
- HAMBLIN, A.S. *see* YASSIN, R.J.
- HARRIS, S. *see* PEIFANG, S.
- HASAN, A. *see* STANFORD, M.R.
- HASHIMOTO, S. *see* TAKII, Y.
- HATAKEYAMA, K. *see* TAKII, Y.
- HAUBER, I. *see* MANNHALTER, J.W.
- HELMBY, H. *see* PERLMANN, H.
- HELSEN, M.M.A. *see* JOOSTEN, L.A.B.
- HERMUS, A.R.M.M. *see* LANGERUT, A.G.M. VAN DE
- HIBBS, J.B. *see* EVANS, T.G.
- HIGGINBOTHAM, J.N. & PRUETT, S.B. Assessment of the correlation between nitrite concentration and Listericidal activity in cultures of resident and elicited murine macrophages, 100
- HJALMARSON, Å. *see* FU, M.L.X.
- HOEBEKE, J. *see* FU, M.L.X.
- HOSAKA, S., AKAHOSHI, T., WADA, C. & KONDO, H. Expression of the chemokine superfamily in rheumatoid arthritis, 451
- HUISMAN, J.G. *see* PEIFANG, S.
- HUITEMA, M.G. *see* SPRONK, P.E.
- ICHEN, M. *see* MOUAWAD, R.
- IIAI, T. *see* TAKII, Y.
- ILAN, Y., NAGLER, A., SHOUVAL, D., ACKERSTEIN, A., OR, R., KAPEUSHNIK, J., ADLER, R. & SLAVIN, S. Development of antibodies to hepatitis B virus surface antigen in bone marrow transplant recipient following treatment with peripheral blood lymphocytes from immunized donors, 299
- INOUE, H., TAKEUCHI, M., TANAKA, T., USUI, M., ANDO, S. & TAGUCHI, O. Analysis of the uveitogenic determinant in repeat structure of retinal interphotoreceptor retinoid-binding protein (IRBP), 219
- ISSEKUTZ, A.C., MEAGER, A., OTTERNESS, I. & ISSEKUTZ, T.B. The role of tumour necrosis factor- $\alpha$  and IL-1 in polymorphonuclear leucocyte and T lymphocyte recruitment to joint inflammation in adjuvant arthritis, 26
- ISSEKUTZ, T. B. *see* ISSEKUTZ, A.C.
- IWANO, M., AKAI, Y., FUJII, Y., DOHI, Y., MATSUMURA, N. & DOHI, K. Intraglomerular expression of transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1) mRNA in patients with glomerulonephritis: quantitative analysis by competitive polymerase chain reaction, 309
- JACKSON, T.F.H.G. *see* PUDIFIN, D.J.
- JAMIESON, G.G. *see* CLAYER, M.T.R.
- JANSEN, A.S. *see* COOK, H.T.
- JANVIER, G. *see* BUSEYNE, F.
- JART, D.N.J. *see* SUMMERS, K.L.
- JENNETTE, J.C. *see* YANG, J.J.
- JOHNSON, M.A. *see* MEDINA, E.
- JONGE, N. DE *see* WIJNGAARD, P.L.J.
- JOOSTEN, L.A.B., HELSEN, M.M.A. & BERG, W.B. VAN DEN. Accelerated onset of collagen-induced arthritis by remote inflammation, 204
- JUNG, W. *see* SCHRAUDER, A.
- JUTTE, N.H.P.M. *see* BAAN, C.C.
- KADOWAKI, K.M., MATSUNO, H., TSUJI, H. & TUNRU, I. CD4<sup>+</sup> T cells from collagen-induced arthritic mice are essential to transfer arthritis into severe combined immunodeficient mice, 212
- KALLENBERG, C.G.M. *see* SPRONK, P.E.
- KAPELUSHNIK, J. *see* ILAN, Y.
- KASP, E. *see* STANFORD, M.R.
- KAWAGUCHI, Y. IL-1 $\alpha$  gene expression and protein production by fibroblasts from patients with systemic sclerosis, 445
- KAYAT, D. *see* MOUAWAD, R.

- KEMP, A.S. *see* TANG, M.L.K.  
 KIEVIT, P. *see* BALLIEUX, B.E.P.B.  
 KILSTRA, A. *see* VERJANS, G.M.G.M.  
 KLOCKARS, M. *see* NYBERG, P.  
 KONDO, H. *see* HOSAKA, S.  
 KOOL, S. *see* MITROPOULOS, D.  
 KUIJPER, E.J. *see* EMMERIK, L.C. VAN  
 KUKEL, S. *see* MÜLLER, C.
- LABIRO, M. *see* COMOLI, P.  
 LAHAV, J. *see* YRON, I.  
 LAMAN, J. *see* PEIFANG, S.  
 LANG, A.K. & SEARLE, R.F. The immunomodulatory activity of human amniotic fluid can be correlated with transforming growth factor-beta1 (TGF- $\beta$ 1) and  $\beta$ 2 activity, 158  
 LANGERIJT, A.G.M. VAN DE, LENT, P.L.E.M. VAN, HERMUS, A.R.M.M., SWEEP, C.G.J., COOLS, A.R. & BERG, W.B. VAN DEN. Susceptibility to adjuvant arthritis: relative importance of adrenal activity and bacterial flora, 33  
 LARGEN, P. *see* COOK, H.T.  
 LARSSON, P.H. *see* PERLMANN, H.  
 LAYTON, G. *see* PEIFANG, S.  
 LEENAERTS, P.L., STAD, R.K., HALL, B.M., DAMME, B.J. VAN, VANRETERGHEM, Y. & DAHA, M.R. Hereditary C6 deficiency in a strain of PVG/c rats, 478  
 LEGUIS, E. *see* GHABANBASANI, M. ZAMANI  
 LEHNER, T. *see* STANFORD, M.R.  
 LENT, P.L.E.M. VAN *see* LANGERIJT, A.G.M. VAN DE  
 LENZI, M. *see* MA, Y.  
 LEONG, A.S.-Y. *see* CLAYER, M.T.R.  
 LINBERG, P.C. *see* SPRONK, P.E.  
 LINDBERG, K., RYNNEL-DAGÖÖ, B. & SUNDQVIST, K.-G. Cytokines in nasopharyngeal secretions; evidence for defective IL-1 $\beta$  production in children with recurrent episodes of acute otitis media, 396  
 LOBO-YEO, A. *see* MA, Y.  
 LOCATELI, F. *see* COMOLI, P.  
 LUKEY, P.T. *see* RATCLIFFE, L.T.
- MA, Y., PEAKMAN, M., LOBO-YEO, A., WEN, L., LENZI, M., GÄKEN, J., FARZANEH, F., MIELI-VERGANI, G., BIANCHI, F.B. & VERGANI, D. Differences in immune recognition of cytochrome P450D6 by liver kidney microsomal (LKM) antibody in autoimmune hepatitis and chronic hepatitis C virus infection, 94  
 MACCARIO, R. *see* COMOLI, P.  
 MACKENZIE, C.R. *see* RATCLIFFE, L.T.  
 MCKAY, I.C. *see* MCSHARRY, C.  
 MCSHARRY, C., ANDERSON, K., MCKAY, I.C., COLLOFF, M.J., FEYERABEND, C., WILSON, R.B. & WILKINSON, P. C. The IgE and IgG antibody responses to aerosols of *Nephrops norvegicus* (prawn) antigens: the association with clinical hypersensitivity and with cigarette smoking, 499  
 MALCHIODI, E.L., CHIARAMONTE, M.G., TARANTO, N.J., ZWIRNER, N.W. & MARGNI, R.A. Cross-reactivity studies and differential serodiagnosis of human infections caused by *Trypanosoma cruzi* and *Leishmania* spp.; use of immunoblotting and ELISA with a purified antigen (Ag163B6), 417  
 MALTA, R. *see* VITALE, G.  
 MANCA, F. *see* PEIFANG, S.  
 MANNHALTER, J.W., WOLF, H.M., HAUBER, I., MIRICKA, M., GADNER, H. & EIBL, M.M. T cell differentiation and generation of the antigen-specific T cell repertoire in man: observations in MHC class II deficiency, 392  
 MANZANARES, J. *see* RODRÍGUEZ-GALLEGO, C.  
 MANZIN, A. *see* GABRIELLI, A.  
 MARCO, F.M. *see* PEREIRA, L.F.  
 MARGNI, R.A. *see* MALCHIODI, E.L.  
 MARTIGNAT, L. *see* SAI, P.  
 MARYNEN, P. *see* GHABANBASANI, M. ZAMANI  
 MATHIESON, P.W., QASIM, F.J., THIRU, S., OLDROYD, R.G. & OLIVEIRA, D.B.G. Effects of decomplexation with cobra venom factor on experimental vasculitis, 474  
 MASON, D. The roles of the hypothalamus and the gastrointestinal tract in the prevention of inflammatory autoimmune disease, 339  
 MATSUMURA, N. *see* IWANO, M.
- MATSUNO, H. *see* KADOWAKI, K.M.  
 MAYET, W.-J., SCHWARTING, A. & BÜSCHENFELDE, K.-H. MEYER ZUM. Cytotoxic effects of antibodies to proteinase 3 (C-ANCA) on human endothelial cells, 458  
 MEAGER, A. *see* ISSEKUTZ, A.C.  
 MEDINA, E., BORTHWICK, N., JOHNSON, M.A., MILLER, S. & BOFILL, M. Flow cytometric analysis of the stimulatory response of T cell subsets from normal and HIV-1<sup>+</sup> individuals to various mitogenic stimuli *in vitro*, 266  
 MEIRA, D.A. *see* SINGER-VERMES, L.M.  
 MENDES, R.P. *see* SINGER-VERMES, L.M.  
 MEULIN, A. VAN DER *see* WUNGAARD, P.L.J.  
 MEURER, S.C. *see* QIAO, L.  
 MEYLING, G.MELIG N. *see* WUNGAARD, P.L.J.  
 MIELI-VERGANI, G. *see* MA, Y.  
 MIERAU, R. *see* SCHRAUDER, A.  
 MILANO, S. *see* VITALI, G.  
 MILLER, G.G. *see* SHARMA, S.A.  
 MILLER, S. *see* MEDINA, E.  
 MIRICKA, M. *see* MANNHALTER, J.W.  
 MITROPOULOS, D., KOOL, S., RODRIGUEZ-VILLANUEVA, J. & PLATSOUKAS, C.D. Characterization of fresh (uncultured) tumour-infiltrating lymphocytes (TIL) and TIL-derived T cell lines from patients with renal cell carcinoma, 321  
 MIZUSHIMA, Y. *see* STANFORD, M.R.  
 MOCCIAIO, C. *see* VITALE, G.  
 MOCHTAR, B. *see* BAAN, C.C.  
 MODESTO-XAVIER, L.H. *see* SINGER-VERMES, L.M.  
 MOJA, Ph. *see* QUESNEL, A.  
 MOK, J.Y.Q. *see* ALDHOUS, M.C.  
 MONARI, C. *see* VECCHIARELLI, A.  
 MONTAGNA, D. *see* COMOLI, P.  
 MOSSNIER, J.F. *see* PHAM, B.-N.  
 MOUAWAD, R., ICHEN, M., RIXE, O., BENHAMMOUDA, A., VUILLEMIN, E., WEIL, M., KHAYAT, D. & SOUBRANE, C. Study of IL-2 receptor expression after chemoimmunotherapy in patients treated for metastatic malignant melanoma, 342  
 MÜLLER, C., KUKEL, S., SCHNEWIS, K.E. & BAUER, R. Anti-lymphocyte antibodies in plasma of HIV-1-infected patients preferentially react with MHC class II-negative T cells and are linked to antibodies against gp41, 367  
 MÜLLER, F. *see* AUKRUST, P.  
 MUNRO, V. *see* CARR, A.
- NAGLER, A. *see* ILAN, Y.  
 NIESTERS, H.G.M. *see* BAAN, C.C.  
 NJAPOUM, C. *see* PAHM, B.-N.  
 NYBERG, P. & KLOCKARS, M. Bacillus Calmette-Guérin (BCG) and immunoglobulins synergistically enhance mineral dust-induced production of reactive oxygen metabolites by human monocytes, 334  
 O'DONNELL, J.L. *see* SUMMERS, K.L.  
 OHTA, M. & SATO, N. The cytotoxic analysis of T cell receptor V $\beta$ 1<sup>+</sup> T cell lines derived from the synovial fluid of rheumatoid arthritis patients, 193  
 OLDROYD, R.G. *see* MATHIESON, P.W.  
 OLIVE, C., GATENBY, P.A. & SERJEANTSON, S.W. Restricted junctional diversity of T cell receptor  $\delta$  gene rearrangements expressed in systemic lupus erythematosus (SLE) patients, 430  
 OLIVIERA, D.B.G. *see* MATHIESON, P.W.  
 OR, R. *see* ILAN, Y.  
 OTTERNESS, I. *see* ISSEKUTZ, A.C.
- PACHECO, A. *see* RODRÍGUEZ-GALLEGO, C.  
 PALAMARA, A.T. *see* FRANCESCO, P. DI  
 PAOLUCCI, S. *see* GABRIELLI, A.  
 PATERSON, A. *see* WADEE, A.A.  
 PEIFANG, S., PIRA, G.L., FENOGGIO, D., HARRIS, S., COSTA, M.G., VENTURINO, V., DESSI, V., LAYTON, G., LAMAN, J., HUISMAN, J.G. & MANCA, F. Enhanced activation of human T cell clones specific for virus-like particles expressing the HIV V3 loop in the presence of HIV V3 loop-specific polyclonal antibodies, 361  
 PENNY, R. *see* CARR, A.  
 PEPPS, M.B., BOOTH, S.E., TENNENT, G.A., BUTLER, P.J.G. & WILLIAMS,

- D.G. Binding of pentraxins to different nuclear structures: C-reactive protein binds to small nuclear ribonucleoprotein particles, serum amyloid P component binds to chromatin and nucleoli, 152
- PEREIRA, L.F., MARCO, F.M., BOIMORTO, R., CATURLA, A., BUSTOS, A., CONCHA E.G. DE LA & SUBIZA, J.L. Histones interact with anionic phospholipids with high avidity; its relevance for the binding of histone-antihistone immune complexes, 175
- PEREIRA, R.S. Cardiolipin, coagulation, co-factors and connective tissue disease, 173
- PEREZ-PEREZ, G.I. *see* SHARMA, S.A.
- PERLMANN, H., HELMBY, H., HAGSTEDT, M., CARLSON, J., LARSSON, P.H., TROYE-BLOMBERG, M. & PERLMANN, P. IgE elevation and IgE anti-malarial antibodies in *Plasmodium falciparum* malaria: association of high IgE levels with cerebral malaria, 284
- PERLMANN, P. *see* PERLMANN, H.
- PFREUNDSCHUH, M. *see* SCHRAUDER, A.
- PHAM, B.-N., MOSNIER, J.F., WALKER, F., NJAPOUM, C., BOUGY, F., DEGOTT, C., ERLINGER, S., COHEN, J.H.M. & DEGOS, F. Flow cytometry CD4<sup>+</sup>/CD8<sup>+</sup> ratio of liver-derived lymphocytes correlates with viral replication in chronic hepatitis B, 403
- PIETRELLA, D. *see* VECCHIARELLI, A.
- PIRA, G.L. *see* PEIFANG, S.
- PLATSOUKAS, C.D. *see* MITROPOULOS, D.
- POUW KRAAN, C.T.M. VAN DER, AALBERSE, R. C. & AARDEN, L.A. IgE production in atopic patients is not related to IL-4 production, 254
- PRUETT, S.B. *see* HIGGINBOTHAM, J.N.
- PUDIFIN, D.J., DUURSMA, J., GATHIRAM, V. & JACKSON, T.F.H.G. Invasive amoebiasis is associated with the development of anti-neutrophil cytoplasmic antibody, 48
- PUMPHREY, R.S.H. *see* BANSAL, A.S.
- QASIM, F.J. *see* MATHIESON, P.W.
- QIAO, L., GOLLING, M., AUTSCHBACH, F., SCHÜRMANN, G. & MEUER, S.C. T cell receptor repertoire and mitotic responses of lamina propria T lymphocytes in inflammatory bowel disease, 303
- QUESNEL, A., MOJA, PH., BLANCHE, S., GRISCELLI, C. & GENIN, C. Early impairment of gut mucosal immunity in HIV-1-infected children, 380
- QUINT, W.G.V. *see* BAAN, C.C.
- RASMUSSEN, K. *see* EVANS, T.G.
- RATCLIFFE, L.T., LUKEY, P.T., MACKENZIE, C.R. & RESS, S.R. Reduced NK activity correlates with active disease in HIV<sup>+</sup> patients with multidrug-resistant pulmonary tuberculosis, 373
- REDDY, S.G. *see* WADEE, A.A.
- REGUEIRO, J.R. *see* RODRIGUEZ-GALLEGO, C.
- RESS, S.R. *see* RATCLIFFE, L.T.
- RETINI, C. *see* VECCHIARELLI, A.
- RICHMOND, J. *see* BREWER, J.M.
- RIVA, E. *see* GIANNELLI, G.
- RIVIÈRE, Y. *see* BUSEYNE, F.
- RIXE, O. *see* MOUAWAD, R.
- ROACH, T.I.A. *see* BLACKWELL, J.M.
- ROBERTS, C.W. *see* BLACKWELL, J.M.
- RODRIGUEZ-GALLEGO, C., ARNAIZ-VILLENNA, A., CORELL, A., MANZANARES, J., TIMÓN, M., PACHECO, A. & REGUEIRO, J.R. Primary T lymphocyte immunodeficiency associated with a selective impairment of CD2, CD3, CD43 (but not CD28)-mediated signal transduction, 386
- RODRIGUEZ-VILLANUEVA, J. *see* MITROPOULOS, D.
- ROGOWSKI, M. *see* GLODDEK, B.
- ROSE, M.E. *see* SMITH, A.L.
- ROSENTHAL, K.L. *see* GÓMEZ, A.M.
- RYNNEL-DAGÖÖ, B. *see* LINDBERG, K.
- SAI, P., SENECAT, O., MARTIGNAT, L. & GOUIN, E. Neonatal injections of cyclosporin enhance autoimmune diabetes in non-obese diabetic mice, 138
- SAKAMOTO, T.N. *see* SINGER-VERMES, L.M.
- SATO, N. *see* OHTA, M.
- SCHIRALDI, O. *see* GIANNELLI, G.
- SCHMIDT, D. *see* BUSEYNE, F.
- SCHNEWEIS, K.E. *see* MÜLLER, C.
- SCHRAUDER, A., GAUSE, A., JUNG, W., MIERAU, R. & PFREUNDSCHUH, M. Persistence of a rheumatoid factor (RF)-producing B cell clone with a somatically mutated Ig $\kappa$  chain in a patient with rheumatoid arthritis, 200
- SCHÜRMANN, G. *see* QIAO, L.
- SCHUURMAN, HENK-JAN *see* WIJNGAARD, P.L.J.
- SCHWARTING, A. *see* MAYET, W.-J.
- SEARLE, R.F. *see* LANG, A.K.
- SENECAT, O. *see* SAI, P.
- SERJEANTSON, S.W. *see* OLIVE, C.
- SEVERINI, C. *see* VECCHIARELLI, A.
- SHARMA, S.A., MILLER, G.G., PEREZ-PEREZ, G.I., GUPTA, R.S. & BLASER, M.J. Humoral and cellular immune recognition of *Helicobacter pylori* proteins are not concordant, 126
- SHINNICK, T. *see* STANFORD, M.R.
- SHOENFELD, Y. *see* COHEN, J.
- SHOHAT, L. *see* YRON, I.
- SHOUVAL, D. *see* ILAN, Y.
- SILVESTRIS, F., CAFFORIO, P. & DAMMACCO, F. Pathogenic anti-DNA idiotype-reactive IgG in intravenous immunoglobulin preparations, 19
- SINGER-VERMES, L.M., BURGER, E., CALICH, V.L.G., MODESTO-XAVIER, L.H., SAKAMOTO, T.N., SUGIZAKI, M.F., MEIRA, D.A. & MENDES, R.P. Pathogenicity and immunogenicity of *Paracoccidioides brasiliensis* isolates in the human disease and in an experimental murine model, 113
- SIRACUSA, A. *see* VECCHIARELLI, A.
- SLAVIN, S. *see* ILAN, Y.
- SMALL, F.M. *see* GÓMEZ, A.M.
- SMITH, A.L., ROSE, M.E. & WAKELIN, D. The role of natural killer cells in resistance to coccidiosis: investigations in a murine model, 273
- SOUBRANE, C. *see* MOUAWAD, R.
- SPINELLI, A. *see* VITALE, G.
- SPRONK, P.E., BOOTSMA, H., HUITEMA, M.G., LIMBURG, P.C. & KALLENBERG, C.G.M. Levels of soluble VCAM-1, soluble ICAM-1, and soluble E-selectin during disease exacerbations in patients with systemic lupus erythematosus (SLE); a long term prospective study, 439
- STAD, R.K. *see* LEENAERTS, P.L.
- STANFORD, M.R., KASP, E., WHISTON, R., HASAN, A., TODRYK, S., SHINNICK, T., MIZUSHIMA, Y., DUMONDE, D.C., ZEE, R. VAN DER & LEHNER, T. Heat shock protein peptides reactive in patients with Behçet's disease are uveitogenic in Lewis rats, 226
- SUBIZA, J.L. *see* PEREIRA, L.F.
- SUGIZAKI, M.F. *see* SINGER-VERMES, L.M.
- SUMMERS, K.L., O'DONNELL, J.L. & JART, D.N.J. Co-expression of the CD45RA and CD45RO antigens on T lymphocytes in chronic arthritis, 39
- SUNDQUIST, K.-G. *see* LINDBERG, K.
- SWEEP, C.G.J. *see* LANGERIJT, A.G.M. VAN DE
- TAGUCHI, O. *see* INOUE, H.
- TAKEUCHI, M. *see* INOUE, H.
- TAKII, Y., HASHIMOTO, S., IIAI, T., WATANABE, H., HATAKEYAMA K. & ABO, T. Increase in the proportion of granulated CD56<sup>+</sup> T cells in patients with malignancy, 522
- TANAKA, T. *see* INOUE, H.
- TANG, M.L.K. & KEMP, A.S. Spontaneous expression of IL-4 mRNA in lymphocytes from children with atopic dermatitis, 491
- TANG, M.L.K., VARIGOS, G. & KEMP, A.S. Reduced interferon-gamma (IFN- $\gamma$ ) secretion with increased IFN- $\gamma$  mRNA expression in atopic dermatitis: evidence for a post-transcriptional defect, 483
- TARANTO, N.J. *see* MALCHIODI, E.L.
- TENNENT, G.A. *see* PEPPS, M.B.
- THIEL, S. *see* EMMERIK, L.C. VAN
- THIRA, R.G. *see* MATHIESON, P.W.
- TIMÓN, M. *see* RODRIGUEZ-GALLEGO, C.
- TODRYK, S. *see* STANFORD, M.R.
- TROYE-BLOMBERG, M. *see* PERLMANN, H.
- TSUJI, H. *see* KADOWAKI, K.M.
- TUNRU, I. *see* KADOWAKI, K.M.
- USUI, M. *see* INOUE, H.

- VALESINI, G. *see* COHEN, J.  
 VANRENTERGHEN, Y. *see* LEENAERTS, P.L.  
 VARIGOS, G. *see* TANG, M.L.K.  
 VASAK, E. *see* CARR, A.  
 VECCHIARELLI, A., SIRACUSA, A., MONARI, C., PIETRELLA, D., RETINI, C. & SEVERINI, C. Cytokine regulation of low-affinity IgE receptor (CD23) on monocytes from asthmatic subjects, 248  
 VENTURINO, V. *see* PEIFANG, S.  
 VERGANI, D. *see* MA, Y.  
 VERJANS, G.M.G.M., BRINKMAN, B.M.N., DOORNIK, C.E.M. VAN, KIJLSTRA, A. & VERWEIJ, C.L. Polymorphism of tumour necrosis factor- $\alpha$  (TNF- $\alpha$ ) at position -308 in relation to ankylosing spondylitis, 45  
 VERWEIJ, C.L. *see* VERJANS, G.M.G.M.  
 VITALE, G., MOCCIARO, C., MALTA, R., GAMBINO, G., SPINELLI, A., GIORDANO, C., STASSI, G., ARCOLEO, F., MILANO, S. & CILLARI, E. Evaluation of serum levels of soluble CD4, CD8 and  $\beta_2$ -microglobulin in visceral human leishmaniasis, 280  
 VUILLEMIN, E. *see* MOUAWAD, R.  
 WADA, C. *see* HOSAKA, S.  
 WADEE, A.A., PATERSON, A., COPLAN, K.A. & REDDY, S.G. HLA expression in hepatocellular carcinoma cell lines, 328  
 WAKELIN, D.L. *see* SMITH, A.L.  
 WALKER, F. *see* PHAM, B.-N.  
 WALLUKAT, G. *see* FU, M.L.X.  
 WATANABE, H. *see* TAKII, Y.  
 WATRET, K.C. *see* ALDHOUS, M.C.  
 WEIL, M. *see* MOUAWAD, R.  
 WEIMAR, W. *see* BAAN, C.C.  
 WEN, L. *see* MA, Y.  
 WHISTON, R. *see* STANFORD, M.R.  
 WIEBKE, G. *see* EVANS, T.G.  
 WIJNGAARD, P.L.J., MEULEN, A. VAN DER, MEYLING, F.H.J. GMELIG, JONGE, N. DE & SCHUURMAN, HENK-JAN. Soluble CD8 and CD25 in serum of patients after heart transplantation, 505  
 WILKINSON, P.C. *see* MCSHARRY, C.  
 WILLIAMS, D.G. *see* PEPYS, M.B.  
 WILSON, P.B. *see* BANSAL, A.S.  
 WILSON, R.B. *see* MCSHARRY, C.  
 WITZ, I.P. *see* YRON, I.  
 WOLF, H.M. *see* MANNHALTER, J.W.  
 WOUDE, F.J. VAN DE *see* BALLIEUX, B.E.P.B.  
 WU, H.-M. *see* FISHWILD, D.M.  
 YANG, J.J., JENNETTE, J.C. & FALK, R.J. Immune complex glomerulonephritis is induced in rats immunized with heterologous myeloperoxidase, 466  
 YASSIN, R.J. & HAMBLIN, A.S. Altered expression of CD11/CD18 on the peripheral blood phagocytes of patients with tuberculosis, 120  
 YRON, I., SHOHAT, L., LAHAV, J., WITZ, I.P. & FISCH, B. A human monoclonal IgA autoantibody—185/12—behaves like an auto-immune antiphospholipid antibody, 187  
 ZECCA, M. *see* COMOLI, P.  
 ZEE, R. VAN DER *see* STANFORD, M.R.  
 ZONDERVAN, K.T. *see* BALLIEUX, B.E.P.B.  
 ZWIRNER, N.W. *see* MALCHIODI, E.L.

## Subject Index

- $\alpha$ 1-adrenergic receptor, 146
- activation, 303
- acute anterior uveitis, 45
- ADCC, 52
- adjuvant arthritis, 33
- adoptive transfer, 299
- AIDS, 68
- allele-specific polymerase chain reaction, 45
- alphafetoprotein, 158
- amniotic fluid, 158
- amoebiasis, 48
- ANCA, 458
- animal model, 181, 466
- ankylosing spondylitis, 45
- anti-cardiolipin antibodies, 181
- anti-F(ab')<sub>2</sub> antibodies, 19
- anti-neutrophil cytoplasmic antibodies, 48, 52, 466
- anti-phospholipid, 187
- anti-phospholipid syndrome, 181
- antibodies, 175
- antibodies to rIFN, 4
- antibody, 146
- antibody response, 113
- antibody responses, 424
- anticardiolipin, 175, 187
- antigen mimicry, 367
- antihistone antibodies, 175
- arthritis, 26
- asbestos, 334
- asthma, 248
- atopic dermatitis, 483
- atopic patients, 254
- atopy, 491
- autoantibody, 187, 367
- autoimmune hepatitis, 94
- autoimmunity, 19, 181, 219
- autoimmunological labyrinthitis, 133
- autosomal recessive gene, 478
- $\beta$ <sub>2</sub>-GPI, 187
- $\beta$ <sub>2</sub>-microglobulin, 280
- B cell, 126
- bacterial flora, 33
- bactericidal, 100
- Behçet's disease, 226
- bone marrow transplantation, 510
- C12MDP, 164
- C6 deficiency, 478
- C-reactive protein, 152
- candidiasis, 347
- cardiomyocytes, 146
- cartilage destruction, 204
- CD11/CD18, 120
- CD3, 517
- CD4, 517
- CD45, 39
- CD5, 10
- CD56<sup>+</sup> T cells, 522
- CD8 effector cells, 61
- CD8 subpopulations, 61
- CD8<sup>+</sup> T lymphocytes, 68
- cell transfer, 133
- cerebral malaria, 284
- chemoimmunotherapy, 342, 347
- chemokine superfamily, 451
- childhood, 483, 491
- children, 380, 396
- chromatin, 152
- chronic arthritis, 39
- chronic hepatitis B, 403
- chronic hepatitis C, 4
- chronic lymphatic leukaemia, 239
- clinical heart transplantation, 293
- clinical significance, 61
- cobra venom factor, 474
- coccidiosis, 273
- collagen-induced arthritis, 204, 212
- colorectal cancer, 522
- combined immunodeficiency, 392
- common variable immunodeficiency, 23
- complement, 474
- corticosterone, 33
- Crohn's disease, 303
- cross-reactivity, 417
- crustacea allergy, 499
- cryoglobulinaemia, 87
- cyclosporin, 138
- cytochrome P450D6, 94
- cytoimmunologic monitoring, 505
- cytokine, 309
- cytokines, 76, 204, 248, 260
- cytotoxic T lymphocyte, 68
- cytotoxic T lymphocytes, 61, 353
- cytotoxicity, 193, 458
- diabetes, 138
- diabetes mellitus, 309
- differential serodiagnosis, 417
- disease progression, 68
- drug hypersensitivity, 260
- drug-resistance, 373
- DTH reactions, 113
- Eimeria vermiformis*, 273
- EMB histopathology, 505
- endothelial cells, 52, 458
- Entamoeba histolytica*, 48
- experimental autoimmune uveoretinitis, 219
- Fc receptor phagocytosis, 242
- fibroblast, 445
- fibrosis, 445
- flow cytometry, 266
- fungal virulence, 113
- $\gamma/\delta$  expression, 430
- $\gamma\delta$  T cells, 193, 522
- gelonin, 10
- gender-dependent infections, 424
- Giardia muris*, 424
- glomerular mesangium, 315
- glomerulonephritis, 309, 315, 466
- gp41, 367
- guinea pig, 133
- gut, 380
- HCC cell lines, 328
- heart transplantation, 505
- heat shock protein, 226



- heat shock proteins, 126  
*Helicobacter pylori*, 126  
*Helicobacter pylori* antigens, 126  
hepatitis B virus, 299, 403  
hepatitis C virus, 87, 94  
histones, 175  
HIV, 68, 83, 353, 361, 367  
HIV-1, 76, 380  
HIV-1 infection, 266  
HLA-B27, 45  
HLA expression, 328  
human immunodeficiency virus, 260
- IDDM, 517  
idiotypic network, 19  
IFN therapy, 4  
IgA, 187, 380  
IgE, 254, 499  
IgE elevation, 284  
IgG, 242  
IgG2a, 164  
IgG subclass, 424  
IL-1, 26  
IL-1 $\alpha$ , 445  
IL-1 $\beta$ , 396, 445  
IL-2, 158, 254, 293  
IL-2 deficiency, 386  
IL-2 receptors, 342  
IL-4, 491  
IL-6, 396  
immune complex, 466  
immunity, 273  
immunoconjugates, 10  
immunodeficiency, 386  
immunogenicity, 146  
immunoglobulin, 334  
immunoglobulin genes, 200  
immunology, 83  
immunomodulation, 19, 158  
immunoprecipitation, 451  
immunosuppression, 347  
immunotherapy, 10  
integrins, 120  
interferon-gamma, 164, 254, 483  
interphotoreceptor retinoid-binding protein, 219  
intracellular killing, 347  
intramolecular help, 361  
isogenic murine model, 113
- junctional diversity, 430
- kidney polymerase chain reaction, 31
- LAK cells, 510  
lamina propria T lymphocytes, 303  
large granular lymphocytes, 522  
leishmaniasis, 417  
leucocytes, 120  
Lewis rats, 226  
*Listeria monocytogenes*, 100  
liver, 522  
liver-derived lymphocytes, 403  
liver diseases, 403  
liver kidney microsomal, 94  
low affinity IgE receptor, 248  
*Lsh/Ity/Bcg (Nramp)*, 107  
lymphocyte migration, 133  
lymphocyte subsets, 212, 403
- macrophage, 100, 164  
macrophages, 107, 248  
malaria, 284  
mannan-binding protein, 411  
mannose-binding protein, 411
- meningitis, 411  
mercury, 474  
messenger RNA, 293  
metastatic malignant melanoma, 342  
MHC class II deficiency, 392  
MHC class II, 367  
mitogenic stimulation, 266  
monoclonal gammopathy, 181  
monocytes, 76, 232, 248  
mRNA, 483, 491  
mucosal immunity, 380  
*Mycobacterium avium*, 76  
*Mycobacterium bovis*, 334  
myeloperoxidase, 52, 466
- nasopharyngeal secretions, 396  
natural autoantibodies, 181  
natural killer, 347  
natural killer cells, 273, 373  
neonatal treatment, 138  
neopterin, 232  
neutralizing antibodies, 361  
nitric oxide, 83, 100, 315  
nitrite, 100  
NK lymphocytes, 510  
NOD mice, 138  
nucleus, 152  
nutrition, 83
- occupational asthma, 499
- p75 chain of IL-2R, 510  
paediatric HIV infection, 61  
paracoccidioidomycosis, 113  
pathogenesis, 367  
pentraxin, 152  
peptide, 146  
peptides, 226  
peripheral blood lymphocytes, 299  
phospholipids, 175  
*Plasmodium falciparum*, 284  
polymerase chain reaction, 87, 309  
polymorphisms, 517  
proliferation, 386  
prospective study, 439  
proteinase 3, 52, 458  
PVG/c rat, 478
- quartz, 334
- reactive oxygen metabolites, 334  
reactive oxygen species, 232  
rejection, 293, 505  
remote inflammation, 204  
renal cell carcinoma, 321  
rheumatoid arthritis, 193, 200, 451  
rheumatoid factor, 200  
RT-PCR, 451  
RTA, 10
- sCD25, 505  
sCD4, 280  
sCD8, 280, 505  
SCID mice, 212  
serum amyloid P component, 152  
signal transduction, 386  
smoking, 499  
soluble CD23, 239  
soluble adhesion molecules, 439  
somatic mutation, 200  
splenic autotransplantation, 242  
susceptibility, 33  
sympathetic cochleolabyrinthitis, 13  
synovial fluid, 193

systemic lupus erythematosus, 19, 309, 430, 439  
systemic sclerosis, 445

T cell, 126  
T cell antigen receptor/TCR, 303  
T cell differentiation, 392  
T cell ontogeny, 392  
T cell receptor, 430  
T cell subsets, 266  
T clones, 361  
T lymphocyte, 386  
T lymphocytes, 39  
Th1, 164  
Toxoplasma, 107  
transfer, 212  
transforming growth factor-beta, 158

trypanosomiasis, 417  
tuberculosis, 120, 373  
tumour-infiltrating lymphocytes, 321  
tumour necrosis factor, 26, 120  
tumour necrosis factor-alpha, 45, 396

ulcerative colitis, 303  
uveitis, 226

vasculitis, 458, 474  
virus replication, 403  
virus-like particles, 361  
visceral leishmaniasis, 280

X-linked agammaglobulinaemia, 239



